

## **THURSDAY, NOVEMBER 9<sup>TH</sup>, 2023**

10:00 – 11:00 Registration

11:00 – 11:20 Welcome & Introduction (GIDRM, IMASS, IMN)

### **SESSION 1** Chairpersons: Turano Paola and Andrea Armirotti

11:20 – 12:00 Plenary I: **Roy Goodacre**, President of the Metabolomics Society  
*Lessons from large-scale metabolic phenotyping*

12:00 – 12:20 **Angela Bachi**  
*BACE2 regulates lipid metabolism in cancer*

12:20 – 12:40 **Andrea Bernini**  
*Metabolomics of an iconic disease: alternative biotransformations in alkaptonuria*

12:40 – 13:00 **Laura Brunelli**  
*The plasma nutrimental fingerprints in frail elderly: assessing the dietary habits by mass spectrometry*

13:00 – 13:20 **Nicola Cavallini**  
*Tracing the identity of Parmigiano Reggiano “Prodotto di Montagna – Progetto Territorio” cheese using NMR spectroscopy and multivariate data analysis*

13:20: 14:20 **LUNCH AND NETWORKING**

### **SESSION 2** Chairpersons: Sara Tortorella and Antonio Randazzo

14:20 – 14:40 **Giorgia Ciufolini**  
*Exo and endometabolomics unveil metabolic differences in 2D vs. 3D cell culture models for cholangiocarcinoma cell lines*

14:40 – 15:00 **Giulia De Simone**  
*Shedding Light on Riboflavin: Investigating its Impact on Tumor-Associated Macrophages Polarization in Colorectal Liver Metastasis*

15:00 – 15:20 **Elena Ferrari**  
*Metabolomes of breast cancer cell lines highlight the differences in the metabolic reprogramming of diverse tumour subtypes*

15:20 – 15:40 **Mar Garcia-Aloy**  
*Boosting annotation confidence in untargeted lipidomics experiments by the use of complementary chemical properties*

15:40 – 16:00 **Veronica Ghini**  
*COVID-19: a complex disease with a unique metabolic signature*

16:00- 17:00 **COFFEE BREAK AND POSTER SESSION I**

**SESSION 3** Chairpersons: Federica Dal Bello and Michele Remo Chierotti

- 17:00 – 17:40 **Plenary II: Adele Mucci**, University of Modena and Reggio Emilia  
*Tissue metabolomics and HR-MAS NMR*
- 17:40 – 18:00 **Nunzia Iaccarino**  
*Multi-organ and plasma metabolomics for evaluating the effects of different gadolinium-based contrast agents in mice*
- 18:00 – 18:20 **Nara Liessi**  
*The exploration of the cystic fibrosis bronchial epithelium lipidome*

**FRIDAY, NOVEMBER 10<sup>TH</sup>, 2023**

**SESSION 4** Chairpersons: Roberta Pastorelli and Daniel Cicero

- 9:30 – 10:10 **Plenary III: Pedro Mena**, University of Parma  
*An Italian metabolomics journey: from phytochemical fingerprinting to precision nutrition*
- 10:10 – 10:30 **Emanuela Locci**  
*PMI estimation through an NMR metabolomic approach on animal ocular Biofluids*
- 10:30 – 10:50 **Carmen Marino**  
*Could serum metabolite concentration predict connectomes' brain parameters?*
- 10:50 – 11:10 **Giuseppe Martano**  
*Unlocking Molecular Insights: The Evolution of Untargeted Metabolomics Analysis with Mass Spectrometry Imaging*
- 11:10 – 11:40 **COFFEE BREAK AND POSTER SESSION II**

**SESSION 5** Chairpersons: Adele Mucci and Giuseppe Pieraccini

- 11:40 – 12:00 **Vittoria Matafora**  
*Opti-nQL: An Optimized Nano-LC Method for LC/MS Lipidomics Analysis*
- 12:00 – 12:20 **Gianfranco Picone**  
*The MABEL project: Metabolomics Approach for the assessment of Baby-Mother Enteric microbiota Legacy. A Preliminary Pilot Study*
- 12:20 – 12:40 **Mattia Sozzi**  
*Italian Hazelnut Authentication and Traceability: Fusing Nuclear Magnetic Resonance and Chromatography Data for Robust Analysis*
- 12:40 – 13:00 **Martina Spada**  
*Glutaminase-1 inhibitor CB-839 affects proliferation, cell cycle, and energetic*

*metabolism in colorectal cancer cells*

13:00 – 14:00

**LUNCH AND NETWORKING**

14:00 – 14:15

***Claudia Napoli (Bruker)***

*Low-Field benchtop NMR to discover early-onset sepsis*

14:15 – 14:30

***Marynka Ulaszewska (Thermo Fisher Scientific)***

*Unlocking the Mysteries: the vital role of spectral libraries in compound identification*

14:30 – 16:00

Meeting IMN